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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,484	04/02/2004	David M. Rinehart	AD6993 USNA	2326
23906 7590 11/19/2007 E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			EXAMINER GILBERT, WILLIAM V	
			ART UNIT 3635	PAPER NUMBER
			NOTIFICATION DATE 11/19/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

Office Action Summary

Application No.

10/817,484

Applicant(s)

RINEHART ET AL.

Examiner

William V. Gilbert

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 24 August 2007.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-29 is/are pending in the application.

4a) Of the above claim(s) 9-23 and 29 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-8 and 24-28 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)

Paper No(s)/Mail-Date See Continuation Sheet.

4) ☐ Interview Summary (PTO-413)

Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date
:7/21/2004;3/21/2007;2/22/2006;2/25/2005;7/21/2004.

DETAILED ACTION

This is a First Action on the Merits. Claims 1-29 are pending. Claims 9-23 and 29 are withdrawn from consideration. Claims 1-8 and 24-28 are examined.

Election/Restrictions

1. Applicant's election without traverse of Claims 1-8 and 24-28 in the reply filed on 24 August 2007 is acknowledged.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "interlayer [that] extends beyond at least one edge of the laminate" per Claim 1, lines 11, 12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be

labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. The use of the phrase "and/or" (Claim 1, lines 20, 22; Claim 24, lines 10, 12) renders the claim indefinite because it is unclear if the Applicant is positively claiming the limitation following the phrase or referring to it in the alternative form.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Knight (U.S. Patent No. 2,388,786).

Claim 1: Knight discloses a glazing element (Fig. 2) comprising a transparent laminate in a support structure (Fig. 2) and means for attaching the laminate to the structure wherein the laminate is at least one layer of glass (15) bonded directly to a thermoplastic polymer (17) layer on at least one surface of the glass, the interlayer extends beyond at least one edge of the laminate (see Fig. 2, generally, proximate 35), one surface

of the extended portion on the interlayer is bonded to the surface of the attachment means, which is a clip (18) another surface of the extended portion of the interlayer is bonded to the glass (proximate 35), the clip is useful for aligning and holding the laminate inside of a retaining channel (28; Applicant should note that the retaining channel is not positively claimed) the clip has at least one interlocking extension (portion 18) the restricts transverse movement of the laminate and it restricts movement of the laminate out of the channel, the glazing does not require an external pressure plate.

Claim 2: the clip has at least one extension (18).

Claim 3: the clip has at least two extensions (18, 20).

Claim 24: Knight disclose a glass laminate (Fig. 2) comprising a transparent laminate (15) and at least one attachment means (18) for attaching the laminate to a support structure, the laminate has at least one layer of glass (15) bonded directly to a thermoplastic polymer interlayer (17) on at least one surface of the glass, the interlayer extends beyond at least one edge of the laminate (Fig. 2, proximate 33), one surface of the extended portion of the interlayer is bonded to at least one surface of the attachment means and another surface

of the interlayer is bonded to the glass (Fig. 2, generally), the attachment means is a clip (18) useful for aligning and holding the laminate in a retaining channel (Applicant should respectfully note that the retaining channel is not positively claimed, but is a statement of intended use), the clip has an interlocking extension (proximate 18) that restricts rotational movement of the laminate out of the channel.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4 and 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knight.

Claim 4: the species in Figure 2 of Knight discloses the claimed invention except for the use of hooks; however, Figure 8 discloses a species where the structure has a hook portion (79; see also Figure 3, 38). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use a hook in conjunction with the support structure because different species of the prior art show hooks being used, so modifying one species with another is within the level of ordinary skill in the art at the time the invention was made.

Claim 8: Knight discloses a glass laminate having at least two layers of glass (15, 16) having at least one thermoplastic interlayer (17) between the glass layers, at least one attachment means (18) positioned at a point on the periphery of the laminate, the means is a retaining assembly bonded to a polymer (portions 30, 33, D), this polymer is bonded to the interlayer (17) and to the glass, and this thermoplastic is the same material as the interlayer. Knight does not disclose that the other polymer is a second polymer. It would have been

obvious at the time the invention was made to a person having ordinary skill in the art to have this as a separate polymer because making the polymer separable or integral is within the level of ordinary skill in the art. *In re Dulberg*, 289 F.2d 522 (CCPA 1961); *In re Larson*, 340 F.2d 965 (CCPA 1965). See M.P.E.P. §2144.04.

Claims 5 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight as applied to claims 1 and 24, respectively above, and further in view of Emek (U.S. Patent No. 6,509,071).

Claims 5 and 25: Knight discloses the claimed invention except for the composition of the thermoplastic polymer. Emek discloses a laminate structure with a layer of PVB (Col. 4, lines 1-6). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use PVB as the thermoplastic in Knight because it is functionally equivalent and would perform equally as well.

Claims 6, 7, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight in view of Emek as applied to

claims 5 and 25 above, and further in view of Rullier (U.S. Patent No. 3,822,172).

Claims 6, 7, 26 and 27: the prior art of record discloses the claimed invention except that the polymer is an ionomer. Rullier discloses a glazing unit with an ionomer for a resin (Col. 1, lines 15-25). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use an ionomer because it is functionally equivalent to the material used in the prior art of record and would perform equally as well.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knight in view of Bandy (U.S. Patent No. 5,076,034).

Claim 28: the prior art of record discloses the claimed invention except that the glazing panel is used as a curtain wall. Bandy discloses a glazing element used as a curtain wall (Col. 1, lines 10-15). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the glazing element in Knight as a curtain wall because glazing elements are well known in the art for use as

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curtain wall systems and the panel in Knight can be formed to be used as a curtain wall system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William V. Gilbert whose telephone number is 571.272.9055. The examiner can normally be reached on Monday - Friday, 08:00 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571.272.6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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